

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE*In re* Application of: Jay Kin KEUNG et al.

Serial No.: 09/666,928

Filed: September 21, 2000

Title: Heat-Sealable Multi-Layer White
Opaque Film

§ Before The Examiner: Hai VO

§

§ Group Art Unit No.: 1771

§

§ Attorney Docket No.: 10188/2

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§ Date: June 10, 2003

Commissioner for Patents
Washington, DC 20231**DECLARATION UNDER 37 CFR 1.132**

Sir:

I, Robert A. Migliorini do hereby declare and state:

1. I am one of the inventors named in the above-captioned patent application.
2. I have a bachelors degree in Chemical Engineering from Tufts University and a Masters degree in Materials Engineering and a Masters in Business Administration degree from Rochester Institute of Technology. Also, I have taken a number of courses relating to thermoplastic film technology.
3. I have worked in the Films Division of ExxonMobil Chemical Corporation (formerly Mobil Oil Corporation) for more than fifteen (15) years and have held a variety of positions in the research and development and manufacturing groups. For the past three (3) years, I have worked in the manufacturing group and my current title is Plant Manager.

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4. I have extensive knowledge in the development and manufacture of thermoplastic films and the polymeric materials and additives that are used to form such films.

5. U.S. Patent 5,691,043 (the '043 patent) to Keller and Nothnagle discloses a uniaxially heat-shrinkable, biaxially oriented, multilayer film having a polypropylene core layer containing isotactic polypropylene and a modifier which reduces the crystallinity of the polypropylene by increasing the chain imperfections or reducing isotacticity of the polypropylene core (See '043 patent abstract).

6. Column 8, lines 10-12 of the '043 patent discloses copolymer skin layers having melting points in the range of about 115°C to about 130°C. Column 13, lines 2-5 of the '043 patent discloses the use of ethylene-propylene-butylene skin layers of Chisso 7701 resin. The DSC (differential scanning calorimetry) melting point of Chisso 7701 resin is about 126°C. When used as a skin layer in oriented polypropylene films comparable to those of the present application, the crimp minimum seal temperature (crimp MST) as tested under ASTM F88 is about 205°F.

7. The pending claims in the present application have a bottom skin layer comprising an ethylene-propylene-butylene terpolymer having a DSC melting point of about 122.5°C. As disclosed in paragraph 8 of my declaration dated April 18, 2003, the crimp seal MST of the bottom skin layer of pending claims 13 and 17 is 180°F.

8. The ethylene-propylene-butylene terpolymer bottom skin layer of the pending application is chemically distinct from the copolymer skin layers cited in column 8, lines 10-12 of the '043 patent. Additionally, the ethylene-propylene-butylene terpolymer bottom skin layer of the pending application has a DSC melting point (122.5°C) significantly lower than the DSC melting point (126°C) of the Chisso 7701 ethylene-propylene-butylene terpolymer skin layers cited in column 13, lines 2-5 of the '043 patent. The lower DSC melting point of ethylene-propylene-butylene terpolymer of the bottom skin layer of the present application correspondingly results in films with

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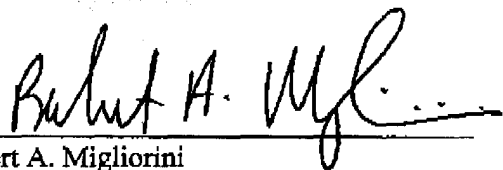
significantly lower crimp seal MST (180°F versus 205°F) than films disclosed in the '043 patent.

9. As I previously pointed out in paragraph 6 of my declaration dated April 18, 2003, in many packaging applications involving plastic films, a lower crimp MST is required for high-speed packaging applications. As such, a packaging film with a lower crimp MST permits packaging lines to be run at higher speeds, and hence increased productivity levels. Accordingly, it has been found to be desirable to design a plastic film with a low crimp MST.

10. I hereby declare that all statements made herein are of my own knowledge and are true, and that all statements made on information and belief are believed to be true; and further that the statements have been made with the knowledge that wilful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code and that such wilful false statements may jeopardize the validity of any patent issuing on the present invention.

Date: _____

6/10/03


Robert A. Migliorini